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EXAMINER	
WONG, ALLEN C	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/725,250	WILSEY ET AL.	
	Examiner	Art Unit	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/1/03, 6/9/04, 11/13/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 12/1/03, 6/9/04 and 11/13/06 are being considered by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-33 and 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara (5,694,495) in view of Lazo (6,791,603).

Regarding claim 1, Hara discloses an optical asset tracking system comprising:

a sensor having a plurality of pixels, each pixel configured to generate an electrical signal in response to an optical data and incident on the pixel (fig.1, element 1 is the sensor for receiving optical video data, wherein fig.2 shows the expansion of element 1 in that there is an array of optical detectors 13 for detecting the plurality of pixels of data, in that each pixel of data is detected by the plurality of optical detectors 13, and that when the data obtained exceeds the threshold, then the video output data is sent to the video module, element 11; see col.3, ln.65 to col.4, ln.8); and

a sensor processor in communication with the sensor, the sensor processor configured to generate an electrical data signal representative of the optical data signal incident on each pixel (fig.1, elements 9, 10 and 6 are interactively connected together

for functioning as a sensor processor wherein the array 1 and scanner elements 2-4 are receiving optical communications data generated by at least one optical communications source in a field of view of the optical sensor 1; col.3, ln.65 to col.4, ln.17, Hara discloses at element 9 that if the data does not exceed the threshold, then the video output data is not sent, but instead, the optical communications data is sent to element 10 and then element 6 for sending a control data).

Hara does not specifically disclose the optical tag emitting optical data signal, and the sensor processor generates asset data responsive to the electrical data signal for each pixel. However, Lazo teaches the use of RFID tags wherein there are RFID sensors for detecting the RFID tags for tracking assets and providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), and that there is a sensor processor that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to

accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 2, Hara discloses wherein each pixel is configured to provide a communications data signal in response to the optical data and incident on the pixel (fig.1, elements 9, 10 and 6 are interactively connected together for functioning as a sensor processor wherein the array 1 and scanner elements 2-4 are receiving optical communications data generated by at least one optical communications source in a field of view of the optical sensor 1; col.3, ln.65 to col.4, ln.17, Hara discloses at element 9 that if the data does not exceed the threshold, then the video output data is not sent, but instead, the optical communications data is sent to element 10 and then element 6 for sending a control data).

Hara does not specifically disclose the optical tag emitting optical data signal, and the sensor processor generates asset data responsive to the electrical data signal for each pixel. However, Lazo teaches the use of RFID tags wherein there are RFID sensors for detecting the RFID tags for tracking assets and providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), and that there is a sensor processor that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors,

ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 3, Hara discloses wherein the sensor and the sensor processor comprise an optical communications imager (fig.1, elements 9, 10 and 6 are interactively connected together for functioning as a data module wherein the array 1 and scanner elements 2-4 are receiving optical communications data generated by at least one optical communications source in a field of view of the optical sensor 1; col.3, ln.65 to col.4, ln.17, Hara discloses at element 9 that if the data does not exceed the threshold, then the video output data is not sent, but instead, the optical communications data is sent to element 10 and then element 6 for sending a control data).

Regarding claim 4, Hara does not specifically disclose the sensor comprises a digital video camera. However, Lazo discloses the use of a digital video camera (fig.2, element 24). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 5, Hara does not specifically disclose the use of analog video camera in communication with the frame grabber. Lazo discloses the use of the analog video camera in communication with the frame grabber (fig.2, element 24 is a camera inside element 12 of fig.1, where element 12 is in communication with elements 10, 2 and 6 for frame grabbing; col.2, ln.53-62, analog or digital recorders can be applied, thus analog video camera can be used). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 6, Hara does not specifically disclose an optical tag database in communication with the sensor processor, the optical tag database storing asset data for each of a plurality of optical tags. However, Lazo teaches the use of an asset database (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data

so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 7, Hara does not specifically disclose further comprising a tracking processor in communication with the sensor processor. However, Lazo teaches the use of a tracking processor is in communication with a video controller or processor (fig.1, element 10 and element 2 are processors or controllers in communication with one another). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 8, Hara does not specifically disclose wherein the sensor processor and the tracking processor are integrated as a single processor. However, Lazo teaches the use of a tracking processor is in communication with a video controller or processor (fig.1, element 10 and element 2 are processors or controllers in communication with one another). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 9, Hara does not specifically disclose the tracking processor comprises a host computer. However, Lazo discloses the tracking processor comprises a host computer (col.2, ln.58-61 and element 10 is a controller that can be used as a computer for tracking data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 10, Hara does not specifically disclose wherein asset data comprise at least one of asset identification data, environmental data, medical data and status data. However, Lazo discloses wherein asset data comprise at least one of asset identification data, environmental data, medical data and status data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding identification data for each RFID tag 20 used to track the corresponding asset). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 11, Hara does not specifically disclose further comprising the plurality of optical tags, each of the optical tags configured for attachment to an asset. However, Lazo discloses the tracking of plural assets (col.2, ln.62-67 and col.3, ln.29-31, Lazo discloses the use of plural sensors for tracking of plural assets by using plural tags). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 12, Hara discloses a method for real-time location of an asset, the method comprising:

detecting, at a sensor comprising a plurality of pixels, the optical data signal at one or more of the pixels (fig.1, element 1 is the sensor for receiving optical video data, wherein fig.2 shows the expansion of element 1 in that there is an array of optical detectors 13 for detecting the plurality of pixels of data, in that each pixel of data is detected by the plurality of optical detectors 13, and that when the data obtained exceeds the threshold, then the video output data is sent to the video module, element 11; see col.3, ln.65 to col.4, ln.8).

Hara does not specifically disclose emitting an optical data signal from the optical tag, the optical data signal including asset data; and determining the asset data in response to the detected optical data signal. However, Lazo teaches the use of RFID tags wherein there are RFID sensors for detecting the RFID tags for tracking assets and providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), and that there is a sensor processor that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 13, Hara does not specifically disclose further comprising determining the location of the asset in response to a determination of which one or more pixels detected the optical data signal. However, Lazo teaches the use of RFID tags wherein there are RFID sensors for detecting the RFID tags for tracking assets and

providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), and that there is a sensor processor that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 14, Hara does not specifically disclose further comprising detecting an interrogation signal at the optical tag and performing the step of emitting the optical data signal in response thereto. However, However, Lazo teaches the use of RFID tags wherein there are RFID sensors for detecting the RFID tags for tracking assets and providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), and that there is a sensor processor that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another

type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 15, Hara does not specifically disclose further comprising: determining a value of an environmental parameter; comparing the value of the environmental parameter to a threshold value; and performing the step of emitting the optical data signal in response to the comparison. However, Lazo discloses the determining of a environmental parameter value (col.2, ln.64-67, Lazo discloses the use of motion sensor for detecting motion or infrared sensor for detecting heat or the environmental value); comparing the value of the environmental parameter to a threshold value (col.2, ln.67-col.3, ln.17; Lazo discloses the use of a tracking controller or processor for checking for conditions to see if the event is triggered based on the obtained environmental value); and performing the step of response to the comparison (col.2, ln.67-col.3, ln.17, Lazo discloses the response in which the event is triggered after comparing the rules from the asset database 14). Lazo does not specifically disclose emitting the optical data. Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been

obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 16, Hara does not specifically disclose further comprising generating sensor data and wherein the asset data comprises the sensor data. Lazo discloses further comprising generating sensor data and wherein the asset data comprises the sensor data (col.2, ln.62-col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 17, Hara discloses further comprising generating processed sensor data (fig.1, element 1 is the sensor for receiving optical video data, wherein fig.2 shows the expansion of element 1 in that there is an array of optical detectors 13 for detecting the plurality of pixels of data, in that each pixel of data is detected by the plurality of optical detectors 13, and that when the data obtained exceeds the threshold, then the video output data is sent to the video module, element 11; see col.3, ln.65 to col.4, ln.8).

Regarding claim 18, Hara does not specifically disclose wherein the asset data comprises at least one of asset identification data, environmental data, medical data

and status data. However, Lazo discloses wherein asset data comprise at least one of asset identification data, environmental data, medical data and status data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding identification data for each RFID tag 20 used to track the corresponding asset). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 19, Hara discloses an optical asset tracking system comprising:

a sensor having a plurality of pixels, each pixel configured to generate an electrical signal in response to an optical data and incident on the pixel (fig.1, element 1 is the sensor for receiving optical video data, wherein fig.2 shows the expansion of element 1 in that there is an array of optical detectors 13 for detecting the plurality of pixels of data, in that each pixel of data is detected by the plurality of optical detectors 13, and that when the data obtained exceeds the threshold, then the video output data is sent to the video module, element 11; see col.3, ln.65 to col.4, ln.8); and

a sensor processor in communication with the sensor, the sensor processor configured to generate an electrical data signal representative of the optical data signal incident on each pixel (fig.1, elements 9, 10 and 6 are interactively connected together for functioning as a sensor processor wherein the array 1 and scanner elements 2-4

are receiving optical communications data generated by at least one optical communications source in a field of view of the optical sensor 1; col.3, ln.65 to col.4, ln.17, Hara discloses at element 9 that if the data does not exceed the threshold, then the video output data is not sent, but instead, the optical communications data is sent to element 10 and then element 6 for sending a control data).

Hara does not specifically disclose the optical tag emitting optical data signal, and the sensor processor generates asset data responsive to the electrical data signal for each pixel. However, Lazo teaches the use of RFID tags wherein there are RFID sensors for detecting the RFID tags for tracking assets and providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), and that there is a sensor processor that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Although Hara does not specifically disclose the use of a plurality of sensors and a plurality of corresponding sensor processors, however, Lazo suggests the use of plural sensors (col.2, ln.62-67 and col.3, ln.29-31, Lazo discloses the use of plural sensors) and the use of plural sensor processors (col.4, ln.30-40, Lazo suggests the use of plural controllers and plural computers) to track assets. One of ordinary skill in the art can easily implement the multiplicity of sensors and sensor processors for permitting the convenient tracking of plural assets as necessary.

Regarding claim 20, Hara does not specifically disclose further comprising a tracking processor in communication with the sensor processors through a communications network. However, Lazo teaches the use of a tracking processor is in communication with a video controller or processor (fig.1, element 10 and element 2 are processors or controllers in communication with one another via a communication link). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 21, Hara does not specifically disclose further comprising a plurality of tracking processors, each of the tracking processors being in communication with a respective one of the sensor processors. Lazo suggests the use of plural sensors (col.2, ln.62-67 and col.3, ln.29-31, Lazo discloses the use of plural sensors) and the use of plural sensor processors (col.4, ln.30-40, Lazo suggests the use of plural controllers and plural computers) to track assets. Therefore, one of

ordinary skill in the art can obviously, easily implement the multiplicity of sensors and sensor processors for permitting the convenient tracking of plural assets as necessary.

Regarding claim 22, Hara does not specifically disclose further comprising an optical tag database in communication with the tracking processor, the optical tag database storing asset data for each of a plurality of optical tags. However, Lazo teaches the use of an asset database (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset, also element 10 is used in communication with the asset database 14). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 23, Hara does not specifically disclose wherein the tracking processor comprises a host computer. However, Lazo discloses the tracking processor comprises a host computer (col.2, ln.58-61 and element 10 is a controller that can be used as a computer for tracking data). Therefore, it would have been obvious to one of

ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 24, Hara does not specifically disclose wherein asset data comprise at least one of asset identification data, environmental data, medical data and status data. However, Lazo discloses wherein asset data comprise at least one of asset identification data, environmental data, medical data and status data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding identification data for each RFID tag 20 used to track the corresponding asset). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 25, Hara does not specifically disclose further comprising the plurality of optical tags, each of the optical tags configured for attachment to an asset. However, Lazo discloses the tracking of plural assets (col.2, ln.62-67 and col.3, ln.29-31, Lazo discloses the use of plural sensors for tracking of plural assets by using plural tags). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors,

optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 26, Hara discloses an optical tag for generating an optical data signal having asset data, comprising:

a sensor obtaining optical data (fig.1, element 1 is the sensor for receiving optical video data, wherein fig.2 shows the expansion of element 1 in that there is an array of optical detectors 13 for detecting the plurality of pixels of data, in that each pixel of data is detected by the plurality of optical detectors 13, and that when the data obtained exceeds the threshold, then the video output data is sent to the video module, element 11; see col.3, ln.65 to col.4, ln.8); and

a processor in electrical communication with the sensor and the memory module, the processor generating a data signal (fig.1, elements 9, 10 and 6 are interactively connected together for functioning as a sensor processor wherein the array 1 and scanner elements 2-4 are receiving optical communications data generated by at least one optical communications source in a field of view of the optical sensor 1; col.3, ln.65 to col.4, ln.17, Hara discloses at element 9 that if the data does not exceed the threshold, then the video output data is not sent, but instead, the optical

communications data is sent to element 10 and then element 6 for sending a control data, thus, the memory must exist to temporarily store the video data).

Hara does not specifically disclose an optical modulator, a memory module storing asset data, the "tag processor", and the optical modulator generating an optical data signal in response to the data signal. However, Lazo teaches the use of RFID tags for generating data signal wherein there are RFID sensors for detecting the RFID tags for tracking assets and providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), a memory moducle storing asset data (col.3, ln.41-col.4, ln.19, Lazo discloses the asset database 14 for storing asset data), and that there is a "tag processor" that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical modulator for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claims 27-29, Hara does not specifically disclose the optical modulator comprises a light emitting diode, laser or a modulated reflector. However, Lazo teaches the use of RFID tags wherein there are RFID sensors for detecting the RFID tags for tracking assets and providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), and that there is a sensor processor that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of tracking sensors, can be used to track assets (col.2, ln.62-col.3, ln.17; Lazo discloses that other types of sensors can be used including infrared that includes laser or LEDs). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 30, Hara does not specifically disclose further comprising an environmental sensor in electrical communication with the tag processor. However, Lazo discloses the use of an environmental sensor in communication with the processor (col.2, ln.64-67, Lazo discloses the use of motion sensor for detecting motion or infrared

sensor for detecting heat or the environmental value, where the sensor 12 of fig.1 can be in communication with the tracking controller or processor 10, in that the RFID tag does provide certain identification data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 31, Hara does not specifically disclose further comprising a control circuit in electrical communication with the tag processor and the optical modulator, the control circuit providing a control signal responsive to the data signal. However, Lazo teaches the use of a tracking processor is in communication with a video controller or processor (fig.1, element 10 and element 2 are processors, controllers or control circuits in communication with one another). Lazo teaches the use of RFID tags wherein there are RFID sensors for detecting the RFID tags for tracking assets and providing asset data (col.3, ln.32-48, Lazo discloses that the assets can be tagged with RFID tags 20 with RFID reader 22), and that there is a sensor processor that generates asset data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding data for each RFID tag 20 used to track the corresponding asset). Although Lazo does not specifically state optical tag for emitting optical data signal, however, Lazo does suggest that other types of sensors, ie. infrared sensors, optical sensors or another type of

tracking sensors, can be used to track assets (col.2, ln.62- col.3, ln.17; Lazo discloses that other types of sensors can be used including infrared that includes laser or LEDs). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for replacing the optical tags instead of Lazo's RFID tags to track assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 32, Hara does not specifically disclose wherein the asset data comprise at least one of asset identification data, environmental data, medical data and status data. However, Lazo discloses wherein asset data comprise at least one of asset identification data, environmental data, medical data and status data (col.3, ln.41-col.4, ln.19, Lazo discloses that there are RFID reader 22 that read RFID tags 20 for obtaining asset data of each corresponding RFID tag 20, and accessing the asset database 14 for pulling out the corresponding identification data for each RFID tag 20 used to track the corresponding asset). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 33, Hara does not specifically disclose wherein the tag processor generates a clock signal to trigger broadcasts of asset data. However, Lazo discloses the triggering of broadcasting of asset data (col.3, ln.5-31, Lazo discloses the

triggering of the asset data if the after checking with the event driven tracking controller 10 from zone sensor 12, other rules may be programmed since the application is flexible to determine the trigger of broadcast of asset data for providing a variety of desired actions as needed by authorized personnel or users). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 36, Hara does not specifically disclose further comprising a trigger sensor to detect an interrogation signal in communication with the tag processor, the control signal being responsive to the detection of the interrogation signal at the trigger sensor. However, Lazo discloses the triggering of broadcasting of asset data (col.3, ln.5-31, Lazo discloses the triggering of the asset data if the after checking with the event driven tracking controller 10 from zone sensor 12, other rules may be programmed since the application is flexible to determine the trigger of broadcast of asset data for providing a variety of desired actions as needed by authorized personnel or users) based on the interrogation signal in communication with tag processor responsive to the detection of the trigger (fig.1, element 10 and element 2 are processors, controllers or control circuits in communication with one another, and in col.3, ln.5-31, Lazo discloses the trigger to set the video recording and broadcast of the asset is set when certain conditions from the predetermined rules are met). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of

Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 37, Hara does not specifically disclose wherein the trigger sensor is one of an optical sensor, an RF sensor, an acoustic sensor and an environmental sensor. However, Lazo discloses wherein the trigger sensor is one of an optical sensor, an RF sensor, an acoustic sensor and an environmental sensor (col.2, ln.62-67). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 38, Hara does not specifically disclose further comprising a switch in electrical communication with the processor, the control signal generated by the tag processor causing the optical modulator to initiate an on-demand broadcast of optical data in response to an activation of the switch. However, Lazo discloses the user initiated actions can be triggered including video tracking of assets (col.2, ln.67-col.3, ln.31, Lazo discloses that since the application is flexible and that user can trigger desired actions for video tracking of objects can be implemented, thus, Lazo must disclose a switch for permitting the user initiation of "desired actions" to initiate the video tracking and broadcasting of optical data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or

items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 39, Hara does not specifically disclose wherein the memory module is provided by an asset. However, Lazo teaches the storage of identification data on the asset tag (col.3, ln.41-col.4, ln.19, Lazo discloses the asset database 14 for storing asset data, in that of course, the RFID tag must disclose a memory module for storing the identification data of the asset for properly identifying the asset). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Regarding claim 40, Hara does not specifically disclose further comprising an interface module in communication with the tag processor. However, Lazo teaches that the interface module is in communication with the tag processor (col.3, ln.5-31, element 10 is the controller or processor in communication with the asset database 14 and that flexible programming for changing the rules or conditions can be adjusted by authorized personnel for interactively communicating with the event-driven tracking controller 10, thus, the interactive module must be there for permitting the user to interactively communicating with the event-driven tracking controller 10). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara and Lazo, as a whole, for tracking assets data so as to accurately, precisely track

assets, people or items, in order to keep track of these assets from being lost or taken, and for security purposes (Lazo col.1, ln.66-col.2, ln.3).

Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara (5,694,495) and Lazo (6,791,603) in view of Monroe (7,131,136).

Regarding claim 34, Hara and Lazo do not specifically disclose wherein the control signal generated by the tag processor is periodic. Monroe teaches that periodic monitoring can be applied for checking surveillance conditions (col.25, ln.60-67). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara, Lazo and Monroe, as a whole, for reducing bandwidth requirements and efficiently using minimal resources as needed (Monroe col.25, ln.56-60).

Regarding claim 35, Hara and Lazo do not specifically disclose wherein the control signal generated by the tag processor is continuous. However, Monroe teaches that continuous monitoring can be applied for checking surveillance conditions (col.28, ln.56-60). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hara, Lazo and Monroe, as a whole, for continuously checking the surveillance data of the monitored area so as to accurately and precisely obtain the details of every moment of the monitored scene for effectively determining the cause(s) of the emergency or critical situation at hand (Monroe col.7, ln.40-45).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341.

The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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